Method for Providing Scalable Multicast Service
in a Virtual Private LAN Service

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ABSTRACT OF THE DISCLOSURE

Multicast capability in a virtual private LAN service (VPLS) is provided in a provider IP/MPLS infrastructure without headend replications by encapsulating a customer data packet to use an established multicast protocol, such as IP multicast. In

10   one example, the customer data packet is encapsulated by an IP header having an IP multicast group address and an Ethernet header. In one implementation, a DNS type mechanism is provided to distribute the IP multicast addresses for VPLS use. Such IP multicast group address can be set aside from an administratively scoped address range. An efficient IP routing algorithm running on the provider's network provides

15   an efficient distribution tree for routing IP-encapsulated customer packet for the VPLS.